25.Engine Trouble in General A: INSPECTION

NOTE:

"RANK" shown in the chart refers to the possibility of the cause of trouble in order "Very often" to "Rarely" A — Very often

- B Sometimes
- C Rarely

Symptom	Problem parts etc.	Possible cause	RANK
1. Engine does not start.			
1) Starter does not turn.	Starter	Defective battery-to-starter harness	В
		Defective starter switch	С
		Defective inhibitor switch or neutral switch	С
		Defective starter	В
	Battery	Improper connection of terminal	Α
		Run-down battery	А
		Defective charging system	В
	Friction	Seizure of crankshaft and connecting rod bearing	С
		Seized camshaft	С
		Seized or stuck piston and cylinder	С
2) Initial combustion does	Starter	Defective starter	С
not occur.	Engine control system <ref. t<="" td=""><td>o EN(H4DOTC)(diag)-2, Basic Diagnostic Procedure.></td><td>А</td></ref.>	o EN(H4DOTC)(diag)-2, Basic Diagnostic Procedure.>	А
	Fuel line	Defective fuel pump and relay	А
		Lack of or insufficient fuel	В
	Belt	Trouble	В
		Defective timing	В
	Compression	Incorrect valve clearance	С
		Loosened spark plug or defective gasket	С
		Loosened cylinder head bolt or defective gasket	С
		Improper valve sealing	С
		Defective valve stem	С
		Worn or broken valve spring	В
		Worn or stuck piston rings, cylinder and piston	С
		Incorrect valve timing	В
		Improper engine oil (low viscosity)	В
3) Initial combustion occurs.	Engine control system <ref. basic="" diagnostic="" en(h4dotc)(diag)-2,="" procedure.="" to=""></ref.>		А
3) Initial combustion occurs.	Intake system	Defective intake manifold gasket	В
		Defective throttle body gasket	В
	Fuel line	Defective fuel pump and relay	С
		Clogged fuel line	С
		Lack of or insufficient fuel	В
	Belt	Trouble	В
		Defective timing	В
	Compression	Incorrect valve clearance	С
		Loosened spark plug or defective gasket	С
		Loosened cylinder head bolt or defective gasket	С
		Improper valve sealing	С
		Defective valve stem	С
		Worn or broken valve spring	В
		Worn or stuck piston rings, cylinder and piston	С
		Incorrect valve timing	B
		Improper engine oil (low viscosity)	В

MECHANICAL

Symptom	Problem parts etc.	Possible cause	RANK
4) Engine stalls after initial	Engine control system <ref. td="" to<=""><td>EN(H4DOTC)(diag)-2, Basic Diagnostic Procedure.></td><td>А</td></ref.>	EN(H4DOTC)(diag)-2, Basic Diagnostic Procedure.>	А
combustion.	Intake system	Loosened or cracked intake duct	В
		Loosened or cracked PCV hose	С
		Loosened or cracked vacuum hose	С
		Defective intake manifold gasket	В
		Defective throttle body gasket	В
		Dirty air cleaner element	С
	Fuel line	Clogged fuel line	С
		Lack of or insufficient fuel	В
	Belt	Trouble	В
		Defective timing	В
	Compression	Incorrect valve clearance	С
		Loosened spark plug or defective gasket	С
		Loosened cylinder head bolt or defective gasket	С
		Improper valve sealing	С
		Defective valve stem	С
		Worn or broken valve spring	В
		Worn or stuck piston rings, cylinder and piston	С
		Incorrect valve timing	В
		Improper engine oil (low viscosity)	В
2. Rough idle and engine	Engine control system <ref. td="" to<=""><td>EN(H4DOTC)(diag)-2, Basic Diagnostic Procedure.></td><td>А</td></ref.>	EN(H4DOTC)(diag)-2, Basic Diagnostic Procedure.>	А
stall	Intake system	Loosened or cracked intake duct	A
		Loosened or cracked PCV hose	A
		Loosened or cracked vacuum hose	A
		Defective intake manifold gasket	В
		-	В
		Defective PCV valve	С
		Loosened oil filler cap	В
			С
	Fuel line		С
		Loosened or cracked PCV hoseLoosened or cracked vacuum hoseDefective intake manifold gasketDefective throttle body gasketDefective PCV valveLoosened oil filler capDirty air cleaner elementDefective fuel pump and relayClogged fuel lineLack of or insufficient fuelDefective timingIncorrect valve clearanceLoosened spark plug or defective gasket	С
			В
	Belt		С
	Compression		В
			В
		Loosened cylinder head bolt or defective gasket	В
		Improper valve sealing	В
		Defective valve stem	С
		Worn or broken valve spring	B
		Worn or stuck piston rings, cylinder and piston	B
		Incorrect valve timing	A
		Improper engine oil (low viscosity)	B
	Lubrication system	Incorrect oil pressure	B
		Defective rocker cover gasket	C
	Cooling system	Over-heating	C C
	Others	Evaporative emission control system malfunction	A
	Outers	Stuck or damaged throttle valve	B

Symptom	Problem parts etc.	Possible cause	RANK
3. Low output, hesitation and	Engine control system <ref. td="" to<=""><td>EN(H4DOTC)(diag)-2, Basic Diagnostic Procedure.></td><td>А</td></ref.>	EN(H4DOTC)(diag)-2, Basic Diagnostic Procedure.>	А
poor acceleration	Intake system	Loosened or cracked intake duct	А
		Loosened or cracked PCV hose	А
		Loosened or cracked vacuum hose	В
		Defective intake manifold gasket	В
		Defective throttle body gasket	В
		Defective PCV valve	В
		Loosened oil filler cap	В
		Dirty air cleaner element	Α
	Fuel line	Defective fuel pump and relay	В
		Clogged fuel line	B
		Lack of or insufficient fuel	C
	Belt	Defective timing	В
	Compression	Incorrect valve clearance	B
	Compression	Loosened spark plug or defective gasket	B
		Loosened spark plug of delective gasket	B
		Improper valve sealing	B
		Defective valve stem	Б С
		Worn or broken valve spring	B
		Worn or stuck piston rings, cylinder and piston	C
		Incorrect valve timing	A
		Improper engine oil (low viscosity)	В
	Lubrication system	Incorrect oil pressure	В
	Cooling system	Over-heating	С
		Over-cooling	С
	Others	Evaporative emission control system malfunction	A
4. Surging		EN(H4DOTC)(diag)-2, Basic Diagnostic Procedure.>	A
	Intake system	Loosened or cracked intake duct	A
		Loosened or cracked PCV hose	A
		Loosened or cracked vacuum hose	A
		Defective intake manifold gasket	В
		Defective throttle body gasket	В
		Defective PCV valve	В
		Loosened oil filler cap	В
		Dirty air cleaner element	В
	Fuel line	Defective fuel pump and relay	В
		Clogged fuel line	В
		Lack of or insufficient fuel	С
	Belt	Defective timing	В
	Compression	Incorrect valve clearance	В
		Loosened spark plug or defective gasket	С
		Loosened cylinder head bolt or defective gasket	C
		Improper valve sealing	C
		Defective valve stem	C
		Worn or broken valve spring	C
		Worn or stuck piston rings, cylinder and piston	C C
		Incorrect valve timing	A
		Improper engine oil (low viscosity)	B
	Cooling system	Over-heating	В
		-	
	Others	Evaporative emission control system malfunction	С

MECHANICAL

Symptom	Problem parts etc.	Possible cause	RANK
5. Engine does not return to	Engine control system <ref. basic="" diagnostic="" en(h4dotc)(diag)-2,="" procedure.="" to=""></ref.>		Α
idle.	Intake system	Loosened or cracked vacuum hose	Α
	Others	Stuck or damaged throttle valve	Α
6. Dieseling (Run-on)	Engine control system <ref. i<="" td="" to=""><td>EN(H4DOTC)(diag)-2, Basic Diagnostic Procedure.></td><td>Α</td></ref.>	EN(H4DOTC)(diag)-2, Basic Diagnostic Procedure.>	Α
	Cooling system	Over-heating	В
	Others	Evaporative emission control system malfunction	В
7. After burning in exhaust	Engine control system <ref. i<="" td="" to=""><td>EN(H4DOTC)(diag)-2, Basic Diagnostic Procedure.></td><td>Α</td></ref.>	EN(H4DOTC)(diag)-2, Basic Diagnostic Procedure.>	Α
system	Intake system	Loosened or cracked intake duct	С
		Loosened or cracked PCV hose	С
		Loosened or cracked vacuum hose	В
		Defective PCV valve	В
		Loosened oil filler cap	С
	Belt	Defective timing	В
	Compression	Incorrect valve clearance	В
		Loosened spark plug or defective gasket	С
		Loosened cylinder head bolt or defective gasket	С
		Improper valve sealing	В
		Defective valve stem	С
		Worn or broken valve spring	С
		Worn or stuck piston rings, cylinder and piston	C
		Incorrect valve timing	A
	Lubrication system	Incorrect oil pressure	C
	Cooling system	Over-cooling	C
	Others	Evaporative emission control system malfunction	C
8. Knocking		EN(H4DOTC)(diag)-2, Basic Diagnostic Procedure.>	A
	Intake system	Loosened oil filler cap	B
	Belt	Defective timing	B
	Compression	Incorrect valve clearance	C
		Incorrect valve timing	B
	Cooling system	Over-heating	A
9. Excessive engine oil con-	Intake system	Loosened or cracked PCV hose	A
sumption	intake system	Defective PCV valve	В
		Loosened oil filler cap	C
	Compression	Defective valve stem	A
	Compression	Worn or stuck piston rings, cylinder and piston	A
	Lubrication system	Loosened oil pump attaching bolts and defective gas-	B
		ket	
		Defective oil filter O-ring	В
		Defective crankshaft oil seal	B
		Defective rocker cover gasket	B
		Loosened oil drain plug or defective gasket	B
		Loosened oil pan fitting bolts or defective oil pan	B

Symptom	Problem parts etc.	Possible cause	RANK
10. Excessive fuel consump-	Engine control system <ref. basic="" diagnostic="" en(h4dotc)(diag)-2,="" procedure.="" to=""></ref.>		Α
Ē	Intake system	Dirty air cleaner element	Α
	Belt	Defective timing	В
	Compression	Incorrect valve clearance	В
		Loosened spark plug or defective gasket	С
		Loosened cylinder head bolt or defective gasket	С
		Improper valve sealing	В
		Defective valve stem	С
		Worn or broken valve spring	С
		Worn or stuck piston rings, cylinder and piston	В
		Incorrect valve timing	В
	Lubrication system	Incorrect oil pressure	С
	Cooling system	Over-cooling	С